

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/FR2004/050621

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C22F1/10

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C22C C03B C22F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, CHEM ABS Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
X	PATENT ABSTRACTS OF JAPAN vol. 018, no. 632 (C-1280), 2 December 1994 (1994-12-02) -& JP 06 240392 A (MITSUBISHI MATERIALS CORP), 30 August 1994 (1994-08-30) abstract	1-5, 8, 9, 11-16
X	PATENT ABSTRACTS OF JAPAN vol. 1997, no. 10, 31 October 1997 (1997-10-31) -& JP 09 157780 A (HITACHI LTD; TOHOKU ELECTRIC POWER CO INC), 17 June 1997 (1997-06-17) abstract	1-4
X	US 4 084 964 A (GRANT NICHOLAS J ET AL) 18 April 1978 (1978-04-18) claims 1-4	1-4
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Further documents are listed in the continuation of box C



Patent family members are listed in annex.

## \* Special categories of cited documents:

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Date of the actual completion of the international search

17 May 2005

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24/05/2005

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
X	GB 669 588 A (METRO CUTANIT LTD) 2 April 1952 (1952-04-02) page 1, line 82 - page 2, line 53 -----	1-4
X	US 4 481 034 A (GRANT NICHOLAS J ET AL) 6 November 1984 (1984-11-06) claims 1-3; examples 1-3 -----	1-4
A	WO 01/90429 A (SAINT GOBAIN ISOVER ; SAINT GOBAIN SEVA (FR); BERTHOD PATRICE (FR); BE) 29 November 2001 (2001-11-29) cited in the application -----	
A	WO 99/16919 A (SAINT GOBAIN ISOVER ; BERTHOD PATRICE (FR); BERNARD JEAN LUC (FR); LIE) 8 April 1999 (1999-04-08) cited in the application -----	
A	US 6 266 979 B1 (SMILEY GARY W ET AL) 31 July 2001 (2001-07-31) -----	
A	US 6 068 814 A (KANG HWAN SUB ET AL) 30 May 2000 (2000-05-30) -----	

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/FR2004/050621

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
JP 06240392	A	30-08-1994	NONE	
JP 09157780	A	17-06-1997	NONE	
US 4084964	A	18-04-1978	NONE	
GB 669588	A	02-04-1952	NONE	
US 4481034	A	06-11-1984	NONE	
WO 0190429	A	29-11-2001	FR 2809387 A1	30-11-2001
			AU 6400701 A	03-12-2001
			BR 0111092 A	08-04-2003
			CA 2410309 A1	29-11-2001
			CN 1430681 A	16-07-2003
			EP 1287174 A1	05-03-2003
			WO 0190429 A1	29-11-2001
			JP 2003535970 T	02-12-2003
			NO 20025548 A	19-11-2002
			PL 358176 A1	09-08-2004
			SK 16272002 A3	02-05-2003
			US 2004050114 A1	18-03-2004
			ZA 200208481 A	11-03-2004
WO 9916919	A	08-04-1999	FR 2769024 A1	02-04-1999
			AT 221927 T	15-08-2002
			AU 749803 B2	04-07-2002
			AU 9271398 A	23-04-1999
			BR 9806253 A	25-01-2000
			CA 2272462 A1	08-04-1999
			CN 1094522 C	20-11-2002
			CZ 9901902 A3	14-06-2000
			DE 69807049 D1	12-09-2002
			DE 69807049 T2	03-04-2003
			DK 968314 T3	28-10-2002
			EP 0968314 A1	05-01-2000
			ES 2194350 T3	16-11-2003
			WO 9916919 A1	08-04-1999
			HU 0001208 A2	28-08-2000
			JP 2001508835 T	03-07-2001
			NO 992576 A	28-05-1999
			SI 968314 T1	28-02-2003
			SK 71099 A3	10-12-1999
			TR 9901193 T1	22-11-1999
			US 2003221756 A1	04-12-2003
			ZA 9808785 A	06-04-1999
US 6266979	B1	31-07-2001	CA 2320601 A1	21-03-2002
US 6068814	A	30-05-2000	KR 199449 B1	15-06-1999
			JP 3120227 B2	25-12-2000
			JP 10204565 A	04-08-1998